

**I claim:**

1. A semiconductor test system having a tester and a prober comprising a control board disposed on a test interface of said tester, said control board comprising:

5        a discrimination circuit comprising a comparison circuit, a determination circuit and a control circuit; and  
a protection circuit;

whereby said comparison circuit will compare signals at a test side and at an interface side and send a comparison result to said determination circuit

10      before said tester receives a tester start signal sent out by said prober, said determination circuit will determine whether the connection is correct according to the comparison result and then send a determination result to said control circuit, said control circuit will activate said protection circuit to interrupt said tester start signal according to the determination result if the 15 connection is incorrect, hence disabling said test system.

2. The semiconductor test system as claimed in claim 1, wherein said control circuit can further drive a lamp to be on and get through said tester start signal to let said test system start testing when said determination circuit determines the connection is correct.

20     3. The semiconductor test system as claimed in claim 1, wherein said control circuit can further send out an alarming signal to an alarm to inform operation staffs for check and correction when said determination circuit determines the connection is incorrect.

4. A semiconductor test method, comprising the steps of:

25     (1) sending a wafer to a semiconductor test machine having a prober and a

tester;

(2) sending out a start signal by said prober when said prober detects the position of a measurement point; and

(3) providing a control board having a discrimination circuit and a protection circuit at a test interface of said tester, utilizing said discrimination circuit to determine whether the interface connection is correct.

5. The test method as claimed in claim 4 further comprising the following steps after said step (3) has been finished:

(4-a) getting through said start signal to let said tester receive said start signal to start testing;

(5) sending out a test result signal and an end of test signal by said tester after said tester finishes testing;

(6) receiving the test result signal and the end of test signal by said prober;

(7) checking whether the test of each die on said wafer has been finished, 15 performing the test of the next wafer if the test of each die on said wafer has been finished;

(8) utilizing said control circuit to repeat the above steps for finishing the test of each die on a wafer and then performing the test of the next wafer, and

20 (9) ending all the test if the test of all the batch of wafers has been finished.

6. The test method as claimed in claim 4 further comprising the following step after said step (3):

(4-b) warning operation staffs by letting an alarm buzz and simultaneously activating said protection circuit to disable said test machine if the connection is incorrect.

7. The test method as claimed in claim 6, wherein said protection circuit is activated to interrupt said start signal to disable said test machine when the connection is incorrect in said Step (4-b).
8. The test method as claimed in claim 4, wherein said discrimination circuit comprises a comparison circuit, a determination circuit and a control circuit.
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9. The test method as claimed in claim 8, wherein said comparison circuit will compare signals at a test side and at an interface side of said test interface and then send a comparison result to said determination circuit.
10. The test method as claimed in claim 9, wherein said determination circuit determines whether the connection is correct according to the comparison result sent out by said comparison circuit, and then sends a determination result to said control circuit.
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11. The test method as claimed in claim 10, wherein said control circuit controls a lamp, an alarm and a test start action according to the determination result sent out by said determination circuit.
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12. The test method as claimed in claim 11, wherein said lamp is used to display the connection state, and an LED will be on to inform users of correct connection for normal test if the connection is correct.
13. The test method as claimed in claim 11, wherein said alarm will give out an alarming sound for warning when the connection is incorrect.
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